3/2/06

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NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	DEC 05	CASREACT(R) - Over 10 million reactions available
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NEWS	5	DEC 14	2006 MeSH terms loaded for MEDLINE file segment of TOXCENTER
NEWS	6	DEC 14	CA/CAplus to be enhanced with updated IPC codes
NEWS	7	DEC 21	IPC search and display fields enhanced in CA/CAplus with the IPC reform
NEWS	8	DEC 23	New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/ USPAT2
NEWS	9	JAN 13	IPC 8 searching in IFIPAT, IFIUDB, and IFICDB
NEWS	10	JAN 13	New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to INPADOC
NEWS	11	JAN 17	Pre-1988 INPI data added to MARPAT
NEWS	12	JAN 17	IPC 8 in the WPI family of databases including WPIFV
NEWS	13	JAN 30	Saved answer limit increased
NEWS	14	JAN 31	Monthly current-awareness alert (SDI) frequency added to TULSA
NEWS	15	FEB 21	STN AnaVist, Version 1.1, lets you share your STN AnaVist visualization results
NEWS	16	FEB 22	Status of current WO (PCT) information on STN
NEWS	17	FEB 22	The IPC thesaurus added to additional patent databases on STN
NEWS	18	FEB 22	Updates in EPFULL; IPC 8 enhancements added
NEWS	19	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS	20	FEB 28	MEDLINE/LMEDLINE reload improves functionality
NEWS	21	FEB 28	TOXCENTER reloaded with enhancements
NEWS	22	FEB 28	REGISTRY/ZREGISTRY enhanced with more experimental spectral property data
NEWS	23	MAR 01	INSPEC reloaded and enhanced
NEWS	24	MAR 03	Updates in PATDPA; addition of IPC 8 data without attributes
NEWS	25	MAR 08	X.25 communication option no longer available after June 2006

NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT
http://download.cas.org/express/v8.0-Discover/

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FILE 'HOME' ENTERED AT 19:20:21 ON 12 MAR 2006

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 19:20:45 ON 12 MAR 2006
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STRUCTURE FILE UPDATES: 10 MAR 2006 HIGHEST RN 876462-31-6
DICTIONARY FILE UPDATES: 10 MAR 2006 HIGHEST RN 876462-31-6

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************
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Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

```
=> e 2,2,3,3,3-pentafluoro-1,1-diphenylpropan-1-ol/cn
E1            1      2,2,3,3,3-PENTADEUTEROPROPANOL/CN
E2            1      2,2,3,3,3-PENTADEUTEROPROPIONITRILE/CN
E3            1 --> 2,2,3,3,3-PENTAFLUORO-1,1-DIPHENYLPROPAN-1-OL/CN
E4            1      2,2,3,3,3-PENTAFLUORO-1-(4-METHOXYPHENYL)-1-PROPANONE/CN
E5            1      2,2,3,3,3-PENTAFLUORO-1-(TRIFLUOROMETHYL)PROPYLIDENE/CN
E6            1      2,2,3,3,3-PENTAFLUORO-1-PHENYL-1-PROPANOL/CN
E7            1      2,2,3,3,3-PENTAFLUORO-1-PROPANAMINE/CN
E8            1      2,2,3,3,3-PENTAFLUORO-1-PROPANOL/CN
E9            1      2,2,3,3,3-PENTAFLUORO-1-PROPOXIDE/CN
E10           1      2,2,3,3,3-PENTAFLUORO-N-(4-METHOXYPHENYL)PROPANIMIDOYL CHLOR
                     IDE/CN
E11           1      2,2,3,3,3-PENTAFLUOROPROPANAL/CN
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E12          1     2,2,3,3,3-PENTAFLUOROPROPANOIC ACID/CN

=> s e3
L1           1 "2,2,3,3,3-PENTAFLUORO-1,1-DIPHENYLPROPAN-1-OL"/CN

=> d l1

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   337-33-7  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Benzenemethanol, α-(pentafluoroethyl)-α-phenyl- (9CI)  (CA
     INDEX NAME)
OTHER NAMES:
CN   2,2,3,3,3-Pentafluoro-1,1-diphenylpropan-1-ol
CN   NSC 42691
FS   3D CONCORD
MF   C15 H11 F5 O
LC   STN Files:   BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CSCHEM,
       USPATFULL
         (*File contains numerically searchable property data)
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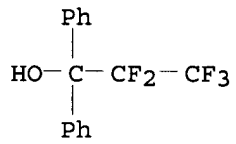


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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

               7 REFERENCES IN FILE CA (1907 TO DATE)
               7 REFERENCES IN FILE CAPLUS (1907 TO DATE)
               3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)


=> e potassium pentafluoroethyltrifluoroborate/cn
E1           1      POTASSIUM PENTAFLUOROETHANESULFONATE/CN
E2           1      POTASSIUM PENTAFLUOROETHYLSILICATE/CN
E3           0 --> POTASSIUM PENTAFLUOROETHYLTRIFLUOROBORATE/CN
E4           1      POTASSIUM PENTAFLUOROHAFNATE(1-)/CN
E5           1      POTASSIUM PENTAFLUOROHAFNATE(IV)/CN
E6           1      POTASSIUM PENTAFLUOROHAFNATE(IV) ((IV))/CN
E7           1      POTASSIUM PENTAFLUOROMANGANATE(III)/CN
E8           1      POTASSIUM PENTAFLUOROMANGANATE(IV)/CN
E9           1      POTASSIUM PENTAFLUOROMETHYLSILICATE/CN
E10          1      POTASSIUM PENTAFLUOROMETHYLSILICATE (K2(SIF5(CH3)))/CN
E11          1      POTASSIUM PENTAFLUOROOXONIOBATE(2-)/CN
E12          1      POTASSIUM PENTAFLUOROOXORHENATE(1-)/CN

=> e potassium pentafluoroethyl trifluoroborate/cn
E1           1      POTASSIUM PENTAFLUORODISTANNATE(II)/CN
E2           1      POTASSIUM PENTAFLUOROETHANESULFONATE/CN
E3           0 --> POTASSIUM PENTAFLUOROETHYL TRIFLUOROBORATE/CN
E4           1      POTASSIUM PENTAFLUOROETHYLSILICATE/CN
E5           1      POTASSIUM PENTAFLUOROHAFNATE(1-)/CN
E6           1      POTASSIUM PENTAFLUOROHAFNATE(IV)/CN
E7           1      POTASSIUM PENTAFLUOROHAFNATE(IV) ((IV))/CN
E8           1      POTASSIUM PENTAFLUOROMANGANATE(III)/CN
E9           1      POTASSIUM PENTAFLUOROMANGANATE(IV)/CN
E10          1      POTASSIUM PENTAFLUOROMETHYLSILICATE/CN
E11          1      POTASSIUM PENTAFLUOROMETHYLSILICATE (K2(SIF5(CH3)))/CN
E12          1      POTASSIUM PENTAFLUOROOXONIOBATE(2-)/CN
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=> file caplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                        11.94      12.15

FILE 'CAPLUS' ENTERED AT 19:27:57 ON 12 MAR 2006
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FILE COVERS 1907 - 12 Mar 2006  VOL 144 ISS 12
FILE LAST UPDATED: 10 Mar 2006  (20060310/ED)

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=> s l1/prep
             7 L1
       3436306 PREP/RL
L2           4 L1/PREP
                 (L1 (L) PREP/RL)

=> d l2 ibib ab 1-4

L2   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2005:1125512  CAPLUS
DOCUMENT NUMBER:          143:405908
TITLE:                    Preparation of pyrrolidinium, pyridinium, and
                          imidazolium perfluoroalkyltrifluoroborates as ionic
                          liquids.
INVENTOR(S):              Ignatyev, Nikolai; Welz-Biermann, Urs; Bissky, German;
                          Willner, Helge; Kucheryna, Andriy
PATENT ASSIGNEE(S):       Merck Patent GmbH, Germany
SOURCE:                   Ger. Offen., 20 pp.
                          CODEN: GWXXBX
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     DE 102004017026       A1    20051020    DE 2004-102004017026    20040402
     WO 2005105815         A1    20051110    WO 2005-EP3             20050103
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
             SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
```

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: DE 2004-102004017026A 20040402

OTHER SOURCE(S): MARPAT 143:405908

AB Title compds. [I; X = NR1, N(R1)2, Q1Q2CHR3CHR4CHR5CHR6, CR2:CR3CR4:CR5CR6, CR7:CR8NR10CR9; R1 = alkyl, CH2R11; R2-R6 = alkyl; R7-R9 = H, alkyl, aryl; R10 = alkyl, CH2R11; R11 = (per)fluoroalkyl; R12 = perfluoroalkyl, perfluorophenyl, etc.; with specific exceptions], were prepared Thus, a mixture of KF and B(OMe)3 in dimethoxyethane was treated dropwise with (C2F5)2P:NSiMe3 (preparation given) followed by heating at 60° for 1 h. Solvent was distilled off and the oily residue in dimethoxyethane was treated with HF under cooling; after stirring for 3 h excess HF was removed and the residue in H2O was treated with 1-methyl-3-butylimidazolium chloride. The lower phase was separated to a mixture containing 60 mol% 1-methyl-3-butylimidazolium pentafluoroethyltrifluoroborate.

L2 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:837099 CAPLUS

DOCUMENT NUMBER: 139:323661

TITLE: Process for the production of (perfluoroalkyl)phosphines by reaction of fluoro(perfluoroalkyl)phosphoranes with hydride donors and their use as perfluoroalkylating reagents

INVENTOR(S): Welz-Biermann, Urs; Ignatyev, Nikolai; Weiden, Michael; Schmidt, Michael; Heider, Udo; Miller, Alexej; Willner, Helge; Sartori, Peter

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003087113	A1	20031023	WO 2003-EP2739		20030317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
DE 10216998	A1	20031113	DE 2002-10216998		20020418
AU 2003218773	A1	20031027	AU 2003-218773		20030317
EP 1495037	A1	20050112	EP 2003-712029		20030317
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
US 2005131256	A1	20050616	US 2003-511554		20030317
JP 2005522512	T2	20050728	JP 2003-584069		20030317

PRIORITY APPLN. INFO.: DE 2002-10216998 A 20020418
WO 2003-EP2739 W 20030317

OTHER SOURCE(S): CASREACT 139:323661; MARPAT 139:323661

AB (perfluoroalkyl)phosphines were prepared by solventless reaction at reflux of at least 1 fluoro(perfluoroalkyl)phosphorane (CnF2n+1)mPF5-m (1≤n≤8, preferably 1≤n≤4; m = 1, 2, 3) with

equimolar or excess amts. of at least 1 hydride ion donor (hydride donors = hydrosilanes, alkyl(hydro)silanes, metal hydrides, borohydrides, hydroborates); tris(perfluoroalkyl)phosphines thus prepared are useful for perfluoroalkylation of chemical substrates, preferably tricoordinated organoboron compds. and/or carbonyl group-containing organic compds., in presence of a base. In an example, treating 0.54 mol (C2F5)3PF2 with 1.089 mol NaBH4 at reflux for 3 h with vigorous stirring gave 93% (C2F5)3P, which subsequently was treated with KOBu-t and benzophenone in THF to give 62% CF3CF2C(OH)Ph2.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:837015 CAPLUS
DOCUMENT NUMBER: 139:323332
TITLE: Method for perfluoroalkylation of carbonyl-containing organic compounds and/or tricoordinated organoboron compounds with tris(perfluoroalkyl)phosphine oxides in the presence of a base
INVENTOR(S): Ignatyev, Nikolai; Welz-Biermann, Urs; Schmidt, Michael; Weiden, Michael; Heider, Udo; Willner, Helge; Sartori, Peter; Miller, Alexej
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003087020	A1	20031023	WO 2003-EP2741		20030317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
DE 10216996	A1	20031030	DE 2002-10216996		20020416
AU 2003219062	A1	20031027	AU 2003-219062		20030317
EP 1494982	A1	20050112	EP 2003-714833		20030317
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
US 2005119513	A1	20050602	US 2003-511156		20030317
JP 2005522496	T2	20050728	JP 2003-583979		20030317
PRIORITY APPLN. INFO.:			DE 2002-10216996	A	20020416
			WO 2003-EP2741	W	20030317

AB The invention relates to a method for perfluoroalkylation of carbonyl-containing organic compds. and/or tricoordinated organoboron compds. with tris(perfluoroalkyl)phosphine oxides in the presence of a base. Thus, a mixture of KF and (MeO)3B in 1,2-dimethoxyethane was treated with tris(pentafluoroethyl)phosphine oxide (preparation given) at -40° followed by stirring for 1 h at -30° to give 53.6% potassium pentafluoroethyltrisfluoroborate [(C2F5)BF3K].

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1982:438595 CAPLUS
DOCUMENT NUMBER: 97:38595
TITLE: Addition-elimination reactions between phenyllithium and some perfluorovinyl ether compounds
AUTHOR(S): Chen, Loomis S.; Tamborski, Christ
CORPORATE SOURCE: Mater. Lab., Air Force Wright Aeronaut. Lab., Wright Patterson AFB, OH, 45433, USA
SOURCE: Journal of Fluorine Chemistry (1982), 20(3), 341-8
CODEN: JFLCAR; ISSN: 0022-1139
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 97:38595
AB Reactions between PhLi and C3F7OCF:CF2 gave C3F7OCF:CFPh and C3F7OCPh:CFPh. Stoichiometry and reaction temperature dictate the degree of substitution; with each replacement of F by Ph the subsequent substitutions require more forcing conditions. The F was substituted easier than the C3F7O group during the addition-elimination reactions.

=> s potassium pentafluoroethyltrifluoroborate
583052 POTASSIUM
16 POTASSIUMS
583054 POTASSIUM
(POTASSIUM OR POTASSIUMS)
4 PENTAFLUOROETHYLTRIFLUOROBORATE
L3 1 POTASSIUM PENTAFLUOROETHYLTRIFLUOROBORATE
(POTASSIUM(W)PENTAFLUOROETHYLTRIFLUOROBORATE)

=> d l3 ibib ab

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1059309 CAPLUS
DOCUMENT NUMBER: 142:37908
TITLE: Synthesis of guanidinium-cation containing salts for use as ionic liquid reaction media
INVENTOR(S): Welz-Biermann, Urs; Ignatyev, Nikolai; Willner, Helge; Bissky, German
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004106288	A2	20041209	WO 2004-EP3459	20040401
WO 2004106288	A3	20050317		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10325051	A1	20041223	DE 2003-10325051	20030602

PRIORITY APPLN. INFO.: DE 2003-10325051 A 20030602
OTHER SOURCE(S): MARPAT 142:37908
AB The invention relates to salts containing guanidinium cations, to a method for

their production and to their use as ionic liqs. Thus, 1,3-dimethyl-2-chloroimidazolidinium chloride was reacted with trimethylsilyldiethylamine to give 1,3-dimethyl-2-diethylaminioimidazolidinium chloride, which was then reacted with trifluorotris(pentafluoroethyl)phosphate to give the desired compound (I), m.p. 36-37° C. I had viscosities of 78, 34, and 18 cP at 40, 60, and 80 °C, resp., compared to 346, 269, and 124 cP for reference compound N,N-dimethyl-N',N',N",N"-tetrahexylguanidinium bis(trifluoromethanesulfonyl)imide at 25, 40, or 60 °C, resp.

=> d l3 iall

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1059309 CAPLUS
DOCUMENT NUMBER: 142:37908
ENTRY DATE: Entered STN: 10 Dec 2004
TITLE: Synthesis of guanidinium-cation containing salts for use as ionic liquid reaction media
INVENTOR(S): Welz-Biermann, Urs; Ignatyev, Nikolai; Willner, Helge; Bissky, German
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
INT. PATENT CLASSIF.:
MAIN: C07C279-04
SECONDARY: C07D233-48; C07F009-28; C07C309-06; C09F005-02
CLASSIFICATION: 23-4 (Aliphatic Compounds)
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004106288	A2	20041209	WO 2004-EP3459	20040401
WO 2004106288	A3	20050317		
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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10325051	A1	20041223	DE 2003-10325051	20030602
PRIORITY APPLN. INFO.:			DE 2003-10325051 A	20030602

PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004106288	ICM	C07C279-04
	ICS	C07D233-48; C07F009-28; C07C309-06; C09F005-02
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	IPCR	C07C0277-00 [I,C]; C07C0277-08 [I,A]; C07C0279-00 [I,C]; C07C0279-02 [I,A]; C07C0279-04 [I,A]; C07F0005-00 [I,C]; C07F0005-04 [I,A]; C07F0009-00 [I,C]; C07F0009-28 [I,A]
	ECLA	C07C277/08; C07C279/02; C07C279/04; C07F005/04; C07F009/28
DE 10325051	IPCI	C07C0279-02 [ICM,7]; C07F0009-50 [ICS,7]; H01M0006-16 [ICS,7]; B01J0031-02 [ICS,7]

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ECLA C07C277/08; C07C279/02; C07C279/04; C07F005/04; C07F009/28

OTHER SOURCE(S): MARPAT 142:37908

ABSTRACT:

The invention relates to salts containing guanidinium cations, to a method for their production and to their use as ionic liqs. Thus, 1,3-dimethyl-2-chloroimidazolidinium chloride was reacted with trimethylsilyldiethylamine to give 1,3-dimethyl-2-diethylaminioimidazolidinium chloride, which was then reacted with trifluorotris(pentafluoroethyl)phosphate to give the desired compound (I), m.p. 36-37° C. I had viscosities of 78, 34, and 18 cP at 40, 60, and 80 °C, resp., compared to 346, 269, and 124 cP for reference compound N,N-dimethyl-N',N',N",N"-tetrahexylguanidinium bis(trifluoromethanesulfonyl)imide at 25, 40, or 60 °C, resp.

SUPPL. TERM: guanidinium salt prepn ionic liq viscosity

INDEX TERM: Ionic liquids
Viscosity
(preparation of ionic liqs. containing guanidinium cations)

INDEX TERM: Alkali metal salts
Alkaline earth salts
ROLE: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of ionic liqs. containing guanidinium cations)

INDEX TERM: Amines, preparation
ROLE: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(salts; preparation of ionic liqs. containing guanidinium cations)

INDEX TERM: 805247-52-3P
ROLE: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of ionic liqs. containing guanidinium cations)

INDEX TERM: 153756-25-3P 805247-48-7P 805247-49-8P 805247-50-1P 805247-53-4P 805247-54-5P 805247-55-6P 805247-57-8P 805247-58-9P 805247-59-0P 805247-60-3P 805247-61-4P 805247-63-6P 805247-64-7P
ROLE: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of ionic liqs. containing guanidinium cations)

INDEX TERM: 80-70-6, n,n,n',n'-Tetramethylguanidine 109-63-7, Borontrifluoride etherate 333-27-7, Methyl triflate 425-75-2, Ethyl triflate 593-85-1, Guanidinium carbonate 996-50-9, Trimethylsilyldiethylamine 1493-13-6, Trifluoromethanesulfonic acid 29166-71-0 30388-20-6, Hexamethylguanidinium chloride 37091-73-9 50314-58-4 261356-49-4 476639-90-4, **Potassium pentafluoroethyltrifluoroborate** 482635-70-1
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(preparation of ionic liqs. containing guanidinium cations)

INDEX TERM: 805247-45-4P 805247-46-5P 805247-47-6P
ROLE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of ionic liqs. containing guanidinium cations)

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CA SUBSCRIBER PRICE                                     -4.50      -4.50

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L4          0 805247-52
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DICTIONARY FILE UPDATES: 10 MAR 2006 HIGHEST RN 876462-31-6

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Please note that search-term pricing does apply when
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Structure search iteration limits have been increased. See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
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experimental property data in the original document. For information
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http://www.cas.org/ONLINE/UG/regprops.html

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L5            1 805247-52-3/RN

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YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.36 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:1
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L5   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   805247-52-3  REGISTRY
CN   2-Propanaminium, N-[bis(dimethylamino)methylene]-N-methyl-, salt with
     trifluoromethanesulfonic acid (1:1) (9CI)  (CA INDEX NAME)
MF   C9 H22 N3 . C F3 O3 S
SR   CA
LC   STN Files:   CA, CAPLUS
DT.CA  CAplus document type:  Patent
RL.P   Roles from patents:  PREP (Preparation); RACT (Reactant or reagent)

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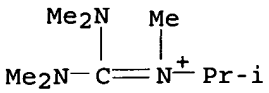

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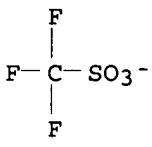

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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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SET COMMAND COMPLETED

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STRUCTURE FILE UPDATES: 10 MAR 2006 HIGHEST RN 876462-31-6
DICTIONARY FILE UPDATES: 10 MAR 2006 HIGHEST RN 876462-31-6

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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* *
* The CA roles and document type information have been removed from *

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* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information.  *
*                                                                    *
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Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

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L6            1 482635-70-1
                (482635-70-1/RN)

=> d l6

L6   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   482635-70-1  REGISTRY
ED   Entered STN:  29 Jan 2003
CN   Phosphate(1-), trifluorotris(pentafluoroethyl)-, hydrogen (9CI)  (CA INDEX
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CI   CCS, COM
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LC   STN Files:   CA, CAPLUS, USPATFULL
CRN  (429679-87-8)
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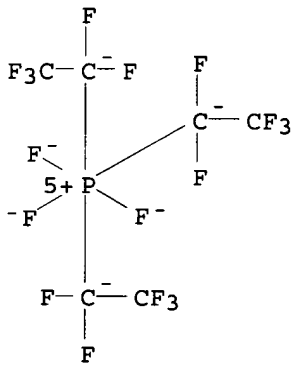

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     ● H+

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

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=>  FIL MARPAT

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                    4.98      55.69

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CA SUBSCRIBER PRICE                                    0.00      -4.50

FILE 'MARPAT' ENTERED AT 19:37:46 ON 12 MAR 2006
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FILE CONTENT: 1969-PRESENT VOL 144 ISS 10 (20060303/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1969-1987

MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US   2006014764 19 JAN 2006
DE 202005014897 22 DEC 2005
EP      1609846 28 DEC 2005
JP   2005353222 22 DEC 2005
WO   2006003494 12 JAN 2006
GB      2415429 28 DEC 2005
FR      2871802 23 DEC 2005
RU      2266908 27 DEC 2005
CA      2495134 23 DEC 2005

Expanded G-group definition display now available.

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=>  SET NOTICE DISPLAY 1

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=>  D ACC 142:37908 ALL

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ANSWER 1  MARPAT  COPYRIGHT 2006 ACS on STN
AN   142:37908  MARPAT
TI   Synthesis of guanidinium-cation containing salts for use as ionic liquid
     reaction media
IN   Welz-Biermann, Urs; Ignatyev, Nikolai; Willner, Helge; Bissky, German
PA   Merck Patent G.m.b.H., Germany
SO   PCT Int. Appl., 42 pp.
     CODEN: PIXXD2
DT   Patent
LA   German
IC   ICM  C07C279-04
     ICS  C07D233-48; C07F009-28; C07C309-06; C09F005-02
CC   23-4 (Aliphatic Compounds)
FAN.CNT 1
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
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PI   WO 2004106288      A2   20041209       WO 2004-EP3459   20040401
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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
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TD, TG

DE 10325051 A1 20041223 DE 2003-10325051 20030602

PRAI DE 2003-10325051 20030602

AB The invention relates to salts containing guanidinium cations, to a method for their production and to their use as ionic liqs. Thus, 1,3-dimethyl-2-chloroimidazolidinium chloride was reacted with trimethylsilyldiethylamine to give 1,3-dimethyl-2-diethylaminioimidazolidinium chloride, which was then reacted with trifluorotris(pentafluoroethyl)phosphate to give the desired compound (I), m.p. 36-37° C. I had viscosities of 78, 34, and 18 cP at 40, 60, and 80 °C, resp., compared to 346, 269, and 124 cP for reference compound N,N-dimethyl-N',N',N",N"-tetrahexylguanidinium bis(trifluoromethanesulfonyl)imide at 25, 40, or 60 °C, resp.

ST guanidinium salt prepn ionic liq viscosity

IT Ionic liquids
Viscosity
(preparation of ionic liqs. containing guanidinium cations)

IT Alkali metal salts
Alkaline earth salts
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of ionic liqs. containing guanidinium cations)

IT Amines, preparation
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(salts; preparation of ionic liqs. containing guanidinium cations)

IT 805247-52-3P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of ionic liqs. containing guanidinium cations)

IT 153756-25-3P 805247-48-7P 805247-49-8P 805247-50-1P 805247-53-4P
805247-54-5P 805247-55-6P 805247-57-8P 805247-58-9P 805247-59-0P
805247-60-3P 805247-61-4P 805247-63-6P 805247-64-7P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of ionic liqs. containing guanidinium cations)

IT 80-70-6, n,n,n',n'-Tetramethylguanidine 109-63-7, Borontrifluoride etherate 333-27-7, Methyl triflate 425-75-2, Ethyl triflate 593-85-1, Guanidinium carbonate 996-50-9, Trimethylsilyldiethylamine 1493-13-6, Trifluoromethanesulfonic acid 29166-71-0 30388-20-6, Hexamethylguanidinium chloride 37091-73-9 50314-58-4 261356-49-4 476639-90-4, Potassium pentafluoroethyltrifluoroborate 482635-70-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of ionic liqs. containing guanidinium cations)

IT 805247-45-4P 805247-46-5P 805247-47-6P
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(preparation of ionic liqs. containing guanidinium cations)

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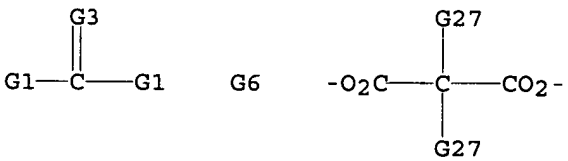
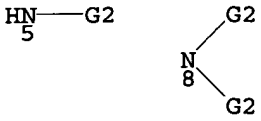
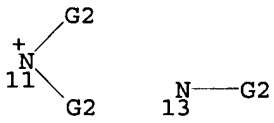


G1 = NH2 / 5 / 8 / heterocycle <containing 1 or more N, attached through 1 or more N>



G2 = alkyl <containing 1-20 C> (opt. substd. by 1 or more G4) / carbocycle <containing 3-7 C> (opt. substd. by 1 or more G4) / Ph (opt. substd. by G5) / R / (Specifically claimed: Me / Et / Pr-n / Pr-i / Bu-t / Bu-s / Ph / cyclohexyl)

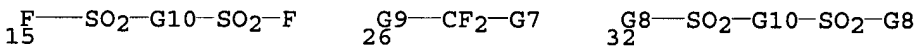
G3 = NH / 13 / 11 / heterocycle <containing 1 or more N, attached through 1 or more N, (+1) charge>

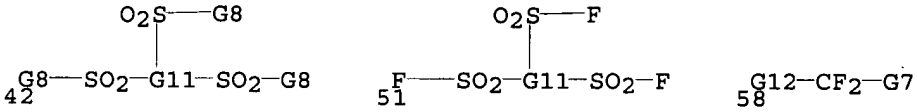


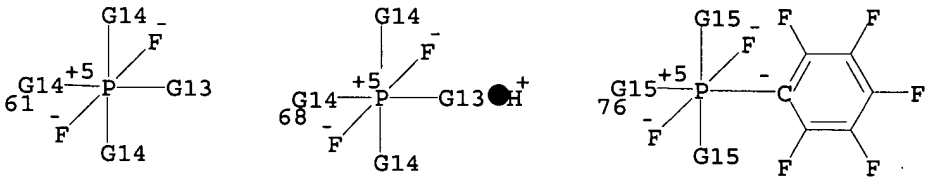
G4 = halo / F / Cl / CN / NO2

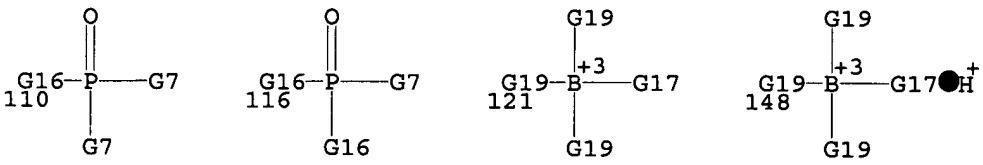
G5 = alkyl <containing 1-6 C> (opt. substd. by 1 or more G4) / halo / F / Cl / CN / NO2

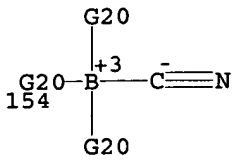
G6 = 15 / 26 / 32 / 42 / 51 / 58 / 61 / 68 / 76 / 477 / 110 / 116 / 121 / 148 / 154 / 162 / 169 / 172 / 175 / 178 / 181 / 185 / 190 / 219 / 241 / 343 / 355 / 309 / 335 / fluoride / chloride / bromide / iodide / 436 / 439 / 441 / 443 / 446 / 450 / 452 / 456 / tetrafluoroborate / sulfate / nitrate / 467 / 467 / 474







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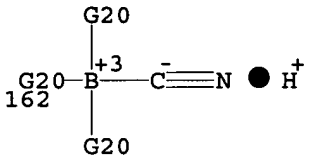
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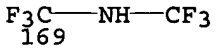
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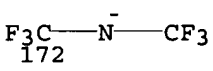
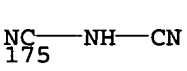
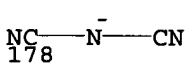
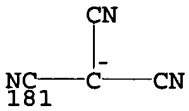
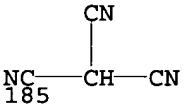
CF3
169

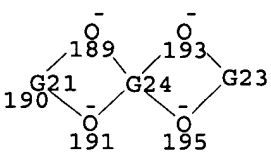

F3C
N
CF3
172

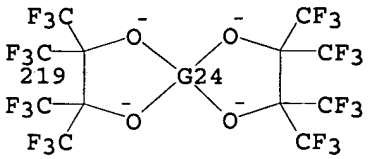

NC
NH
CN
175

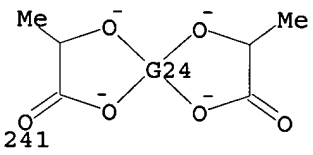

NC
N
CN
178

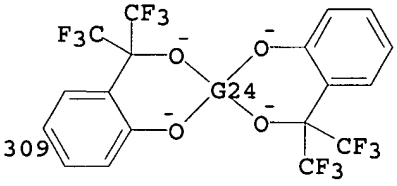

CN
NC
C
CN
181

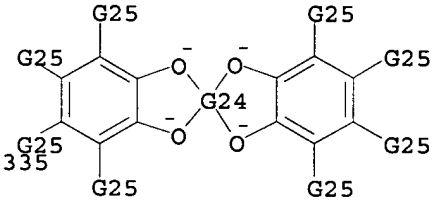

CN
NC
CH
CN
185

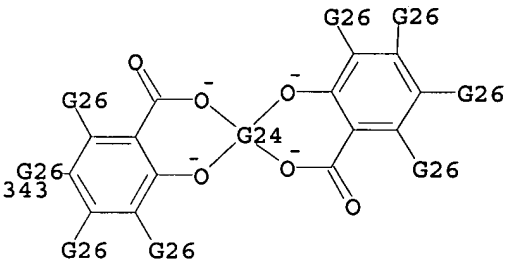

O
O
189
193
G21
G24
G23
190
O
O
191
195

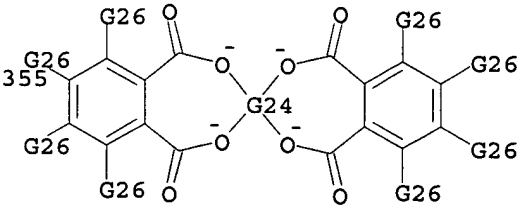

F3C
CF3
F3C
CF3
219
G24
F3C
CF3
F3C
CF3

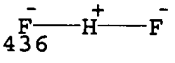

Me
Me
G24
O
241

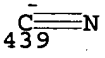

F3C
CF3
G24
309
CF3
CF3

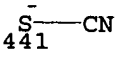

G25
G25
G25
G24
G25
G25
335
G25
G25

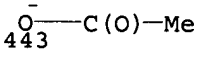

G26
G26
G26
G26
G24
G26
343
G26
G26
G26

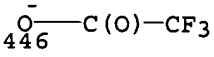

G26
G26
G26
355
G24
G26
G26
G26
G26

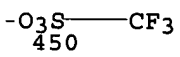

F
H
F
436

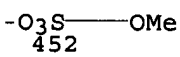

C
N
439

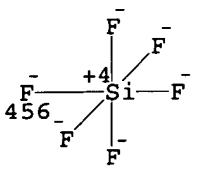

S
CN
441

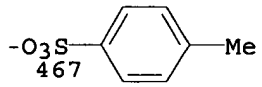

O
C(O)—Me
443

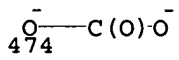

O
C(O)—CF3
446

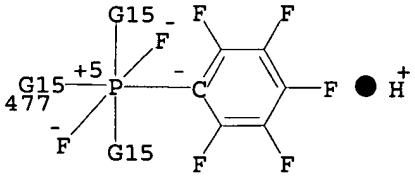

-O3S
CF3
450


-O3S
OMe
452

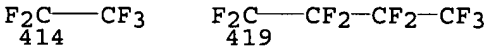




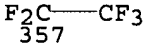




G7 = perfluoroalkyl <containing 1-20 C> / perfluoroalkenyl <containing 2-20 C> / alkynyl <containing 2-20 C, no H> (substd. by 1 or more F) / carbocycle <containing 3-7 C, no H> (substd. by 1 or more F) / Ph (opt. substd. by perfluoroalkyl) / R / (Specifically claimed: CF3 / 414 / 419)



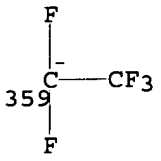
G8 = perfluoroalkyl <containing 2-20 C> / perfluoroalkenyl <containing 2-20 C> / alkynyl <containing 2-20 C, no H> (substd. by 1 or more F) / carbocycle <containing 3-7 C, no H> (substd. by 1 or more F) / Ph (opt. substd. by perfluoroalkyl) / R / (Specifically claimed: 357)

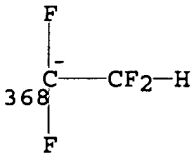


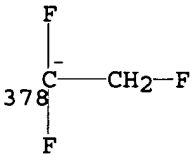
G9 = SO3H / sulfonate
G10 = NH / 49

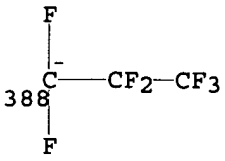
G11 = 50 / CH

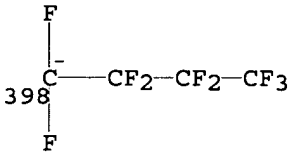
G12 = carboxylate / CO2H
G13 = alkyl <containing 1-20 C, (-1) charge> (opt. substd. by 1 or more F) / (Specifically claimed: 359 / 368 / 378 / 388 / 398)



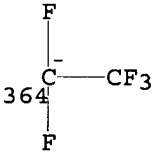


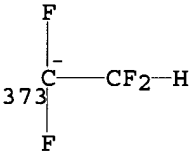


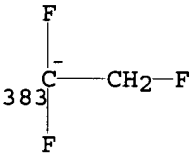


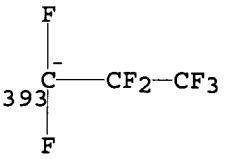


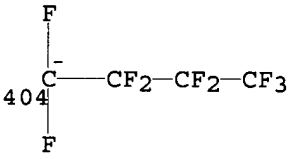
G14 = alkyl <containing 1-20 C, (-1) charge> (opt. substd. by 1 or more F) / fluoride / (Specifically claimed: 364 / 373 / 383 / 393 / 404)



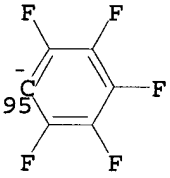






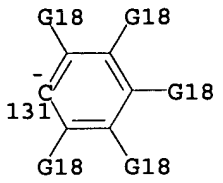


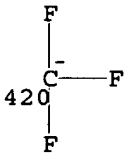
G15 = 95 / fluoride

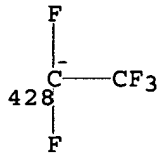


G16 = 115 / OH

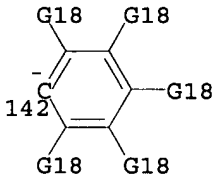
G17 = perfluoroalkyl <containing 1-20 C, (-1) charge> / perfluoroalkenyl <containing 2-20 C, (-1) charge> / alkynyl <containing 2-20 C, no H, (-1) charge> (substd. by 1 or more F) / carbocycle <containing 3-7 C, no H, (-1) charge> (substd. by 1 or more F) / 131 / R <(-1) charge> / (Specifically claimed: 420 / 428)

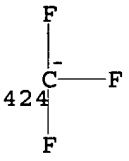


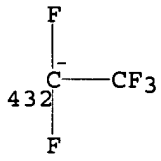




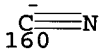
G18 = H / perfluoroalkyl
G19 = perfluoroalkyl <containing 1-20 C, (-1) charge> / perfluoroalkenyl <containing 2-20 C, (-1) charge> / alkynyl <containing 2-20 C, no H, (-1) charge> (substd. by 1 or more F) / carbocycle <containing 3-7 C, no H, (-1) charge> (substd. by 1 or more F) / 142 / R <(-1) charge> / fluoride / (Specifically claimed: 424 / 432)



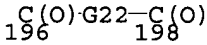




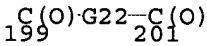
G20 = 160 / fluoride



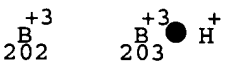
G21 = 196-189 198-191



G22 = (0-3) CH2 (opt. substd. by F)
G23 = 199-193 201-195



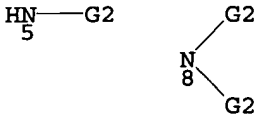
G24 = 202 / 203



G25 = H / F / CF3
G26 = H / CF3
G27 = H / R
Patent location: claim 1
Note: additional ring formation also claimed
Note: also incorporates claim 6

MSTR 2

G1 = NH2 / 5 / 8 / heterocycle <containing 1 or more N, attached through 1 or more N>



G2 = alkyl <containing 1-20 C> (opt. substd. by 1 or more G4) / carbocycle <containing 3-7 C> (opt. substd. by 1 or more G4) / Ph (opt. substd. by G5) / R / (Specifically claimed: Me / Et / Pr-n / Pr-i / Bu-t / Bu-s / Ph / cyclohexyl)

G3 = NH / 13 / heterocycle <containing 1 or more N, attached through 1 or more N, (+1) charge>

G4 = halo / F / Cl / CN / NO2

G5 = alkyl <containing 1-6 C> (opt. substd. by 1 or more G4) / halo / F / Cl / CN / NO2

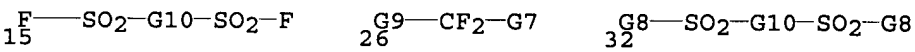
Patent location: claim 6

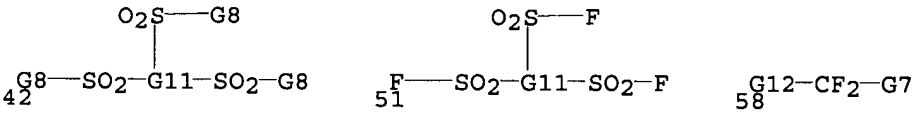
Note: additional ring formation also claimed

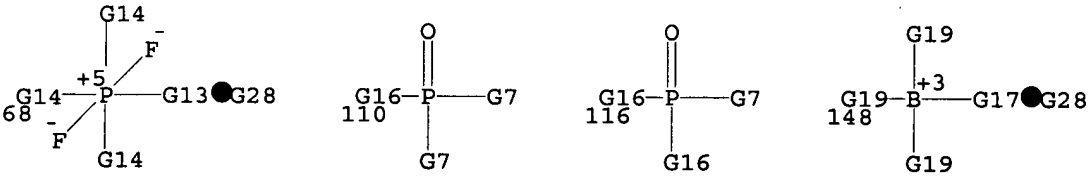
MSTR 3

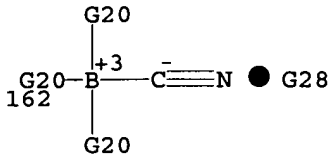
G6

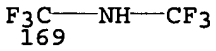
G6 = 15 / 26 / 32 / 42 / 51 / 58 / 68 / 442 / 110 / 116 / 148 / 162 / 169 / 172 / 175 / 178 / 181 / 185 / 190 / 219 / 241 / 343 / 355 / 309 / 335

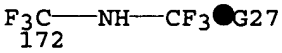


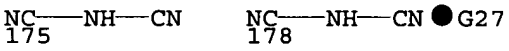


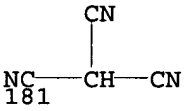


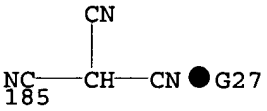


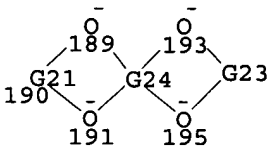


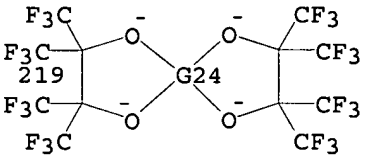


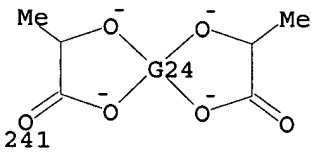


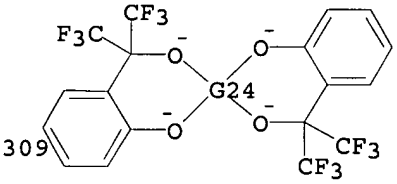


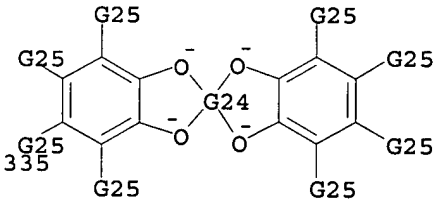


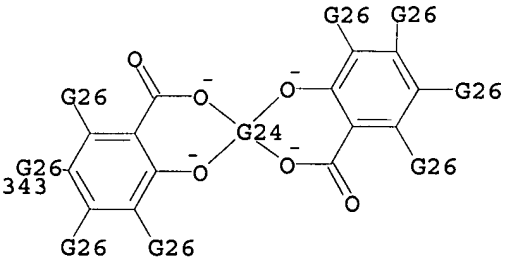


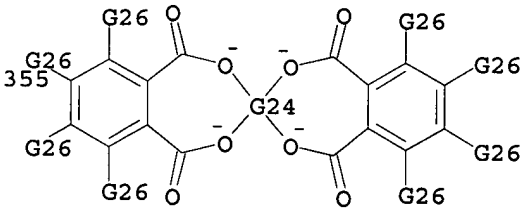


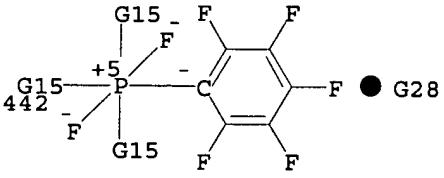






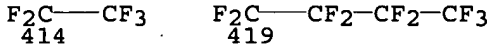




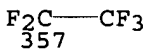


G7 = perfluoroalkyl <containing 1-20 C> /

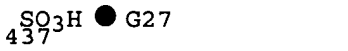
perfluoroalkenyl <containing 2-20 C> /
alkynyl <containing 2-20 C, no H> (substd. by 1 or more F) /
carbocycle <containing 3-7 C, no H>
(substd. by 1 or more F) / Ph (opt. substd. by
perfluoroalkyl) / R / (Specifically claimed: CF3 / 414 / 419)



G8 = perfluoroalkyl <containing 2-20 C> /
perfluoroalkenyl <containing 2-20 C> /
alkynyl <containing 2-20 C, no H> (substd. by 1 or more F) /
carbocycle <containing 3-7 C, no H>
(substd. by 1 or more F) / Ph (opt. substd. by
perfluoroalkyl) / R / (Specifically claimed: 357)



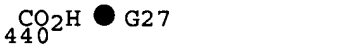
G9 = SO3H / 437



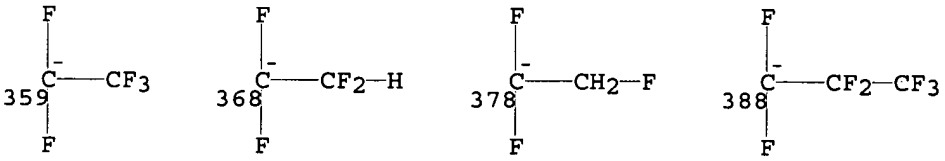
G10 = NH / 49

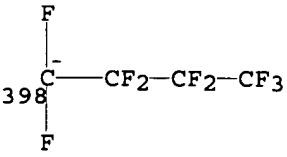
G11 = 50 / CH

G12 = 440 / CO2H

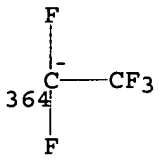


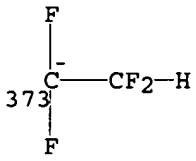
G13 = alkyl <containing 1-20 C, (-1) charge>
(opt. substd. by 1 or more F) / (Specifically claimed: 359 /
368 / 378 / 388 / 398)

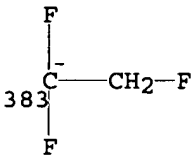


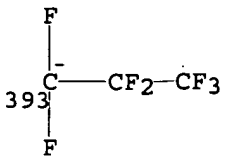


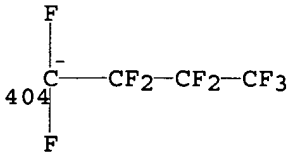
G14 = alkyl <containing 1-20 C, (-1) charge>
(opt. substd. by 1 or more F) / fluoride /
(Specifically claimed: 364 / 373 / 383 / 393 / 404)



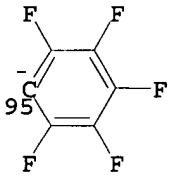






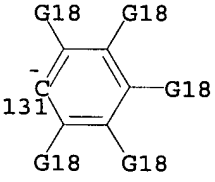


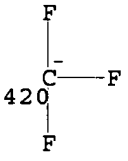
G15 = 95 / fluoride

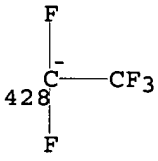


G16 = 115 / OH

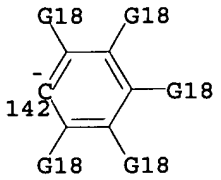
G17 = perfluoroalkyl <containing 1-20 C, (-1) charge> /
perfluoroalkenyl <containing 2-20 C, (-1) charge> /
alkynyl <containing 2-20 C, no H, (-1) charge>
(substd. by 1 or more F) / carbocycle <containing 3-7 C,
no H, (-1) charge> (substd. by 1 or more F) / 131 /
R <(-1) charge> / (Specifically claimed: 420 / 428)

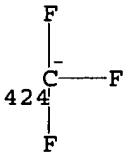


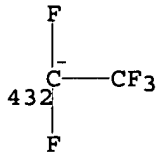




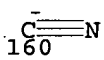
G18 = H / perfluoroalkyl
G19 = perfluoroalkyl <containing 1-20 C, (-1) charge> /
perfluoroalkenyl <containing 2-20 C, (-1) charge> /
alkynyl <containing 2-20 C, no H, (-1) charge>
(substd. by 1 or more F) / carbocycle <containing 3-7 C,
no H, (-1) charge> (substd. by 1 or more F) / 142 /
R <(-1) charge> / fluoride / (Specifically claimed: 424 /
432)



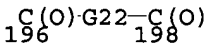




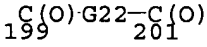
G20 = 160 / fluoride



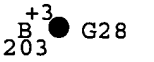
G21 = 196-189 198-191



G22 = (0-3) CH2 (opt. substd. by F)
G23 = 199-193 201-195



G24 = 203



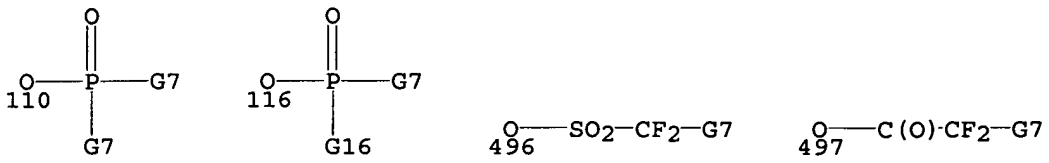
G25 = H / F / CF3
G26 = H / CF3
G27 = alkali metal atom / alkaline earth metal atom
G28 = 461 / alkali metal ion / alkaline earth metal ion

Patent location: claim 6

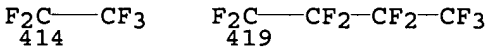
MSTR 4

G2—G6

G2 = alkyl <containing 1-20 C>
(opt. substd. by 1 or more G4) /
carbocycle <containing 3-7 C> (opt. substd. by 1 or more G4)
/ Ph (opt. substd. by G5) / R / (Specifically claimed: Me /
Et / Pr-n / Pr-i / Bu-t / Bu-s / Ph / cyclohexyl)
G4 = halo / F / Cl / CN / NO2
G5 = alkyl <containing 1-6 C>
(opt. substd. by 1 or more G4) / halo / F / Cl / CN / NO2
G6 = 496 / 497 / 110 / 116



G7 = perfluoroalkyl <containing 1-20 C> /
perfluoroalkenyl <containing 2-20 C> /
alkynyl <containing 2-20 C, no H> (substd. by 1 or more F) /
carbocycle <containing 3-7 C, no H>
(substd. by 1 or more F) / Ph (opt. substd. by
perfluoroalkyl) / R / (Specifically claimed: CF3 / 414 / 419)



G16 = 115 / OH

Patent location: claim 7
Note: substitution is restricted

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	6.08	61.77

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.71	-5.21

FILE 'REGISTRY' ENTERED AT 19:39:27 ON 12 MAR 2006

Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 10 MAR 2006 HIGHEST RN 876462-31-6
DICTIONARY FILE UPDATES: 10 MAR 2006 HIGHEST RN 876462-31-6

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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*                                                                    *
* The CA roles and document type information have been removed from *
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* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************

Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

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predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> S 476639-90-4/RN

L7            1 476639-90-4/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L7 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.36 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L7   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   476639-90-4  REGISTRY
CN   Borate(1-), trifluoro(pentafluoroethyl)-, potassium, (T-4)- (9CI)   (CA
     INDEX NAME)
OTHER NAMES:
CN   Potassium (pentafluoroethyl)trifluoroborate
CN   Potassium trifluoro(pentafluoroethyl)borate
MF   C2 B F8 . K
CI   CCS
SR   CA
LC   STN Files:   CA, CAPLUS, CASREACT, USPATFULL
DT.CA  CAplus document type:  Journal; Patent
RL.P   Roles from patents:  PREP (Preparation); RACT (Reactant or reagent)
RL.NP  Roles from non-patents:  PREP (Preparation); PRP (Properties); RACT
       (Reactant or reagent)
CRN  (390750-62-6)
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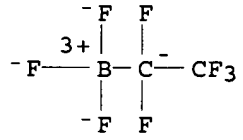

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10 REFERENCES IN FILE CA (1907 TO DATE)
10 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> s 476639-90-4
L8 1 476639-90-4
(476639-90-4/RN)

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.78	64.55

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-5.21

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FILE COVERS 1907 - 12 Mar 2006 VOL 144 ISS 12
FILE LAST UPDATED: 10 Mar 2006 (20060310/ED)

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=> s l8
L9 10 L8

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FIELD CODES CANNOT BE CHANGED HERE
You may have tried to apply a field code to a term that already has a field code. You can only add a field code to a term that has no field code appended to it.

=> s l8 prep
MISSING OPERATOR L8 PREP
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

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=> s l8/prep
            10 L8
       3436306 PREP/RL
L10           7 L8/PREP
                  (L8 (L) PREP/RL)

=> d l10 ibib ab 1-7

L10  ANSWER 1 OF 7  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2005:166762  CAPLUS
DOCUMENT NUMBER:          142:414350
TITLE:                    Li[C2F5BF3] as an electrolyte salt for 4 V class
                          lithium-ion cells
AUTHOR(S):                Zhou, Zhi-Bin; Takeda, Masayuki; Fujii, Takashi; Ue,
                          Makoto
CORPORATE SOURCE:         Battery Materials Laboratory, Mitsubishi Chemical
                          Group Science and Technology Research Center,
                          Incorporated, Ibaraki, 300-0332, Japan
SOURCE:                   Journal of the Electrochemical Society (2005), 152(2),
                          A351-A356
                          CODEN: JESOAN; ISSN: 0013-4651
PUBLISHER:                Electrochemical Society
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   Lithium pentafluoroethyltrifluoroborate, Li[C2F5BF3] (LiFAB), was prepared
     by a facile metathesis reaction between high-purity K[C2F5BF3] and LiBF4
     in di-Me carbonate with almost quant. yield.  It was characterized by 1H-,
     19F-, 11B-, 7Li-NMR, and elemental anal.  In nonaq. solvents, LiFAB showed
     higher electrolytic conductivities than LiBF4 due to the weaker
     coordinating ability of FAB-.  Compared with LiPF6, it showed a lower
     electrolytic conductivity in room-temperature region, and a higher
conductivity in low-temperature
     region (T < -10 °C).  The performances of LiFAB were evaluated in
     comparison with LiPF6 and LiBF4 by using Li/graphite and Li/nickel-based
     oxide half-cells and Li-ion cells.  LiFAB could afford comparable
     performances to LiPF6 and much better performances than LiBF4.
REFERENCE COUNT:          47    THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10  ANSWER 2 OF 7  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2003:990110  CAPLUS
DOCUMENT NUMBER:          140:181496
TITLE:                    Rearrangement reactions of the transient Lewis acids
                          (CF3)3B and (CF3)3BCF2: an experimental and
                          theoretical study
AUTHOR(S):                Finze, Maik; Bernhardt, Eduard; Zaehres, Manfred;
                          Willner, Helge
CORPORATE SOURCE:         Fakultaet 4, Anorganische Chemie, Universitaet
                          Duisburg-Essen, Duisburg, D-47048, Germany
SOURCE:                   Inorganic Chemistry (2004), 43(2), 490-505
                          CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER:                American Chemical Society
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
OTHER SOURCE(S):          CASREACT 140:181496
AB   Short-lived (CF3)3B and (CF3)3BCF2 are generated as intermediates by
     thermal dissociation of (CF3)3BCO and F- abstraction from the weak
     coordinating anion [B(CF3)4]-, resp.  Both Lewis acids cannot be detected
     because of their instability with respect to rearrangement reactions at
     the B-C-F moiety.  A cascade of 1,2-F shifts to B followed by
     perfluoroalkyl group migrations and also difluorocarbene transfer
     reactions occur.  In the gas phase, (CF3)3B rearranges to a mixture of
     linear perfluoroalkyldifluoroboranes CnF2n+1BF2 (n = 2-7), while the resp.
     reactions of (CF3)3BCF2 result in a mixture of linear (n = 2-4) and branched
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monoperfluoroalkyldifluoroboranes, e.g., (C2F5)(CF3)FCBF2. For comparison, the reactions of [CF3BF3]- and [C2F5BF3]- with AsF5 were studied, and the products in the case of [CF3BF3]- are BF3 and C2F5BF2 whereas in the case of [C2F5BF3]-, C2F5BF2 is the sole product. In contrast to reports in the literature, CF3BF2 is too unstable at room temperature to be detected. The decomposition of (CF3)3BCO in anhydrous HF leads to a mixture of the new conjugate Bronsted-Lewis acids [H2F][(CF3)3BF] and [H2F][C2F5BF3]. All reactions are modeled by d. functional calcns. The energy barriers of the transition states are low in agreement with the exptl. results that (CF3)3B and (CF3)3BCF2 are short-lived intermediates. Since CF2 complexes are key intermediates in the rearrangement reactions of (CF3)3B and (CF3)3BCF2, CF2 affinities of some perfluoroalkylfluoroboranes are presented. CF2 affinities are compared to CO and F- affinities of selected boranes showing a trend in Lewis acidity, and its influence on the stability of the complexes is discussed. F- ion affinities are calculated for a variety of different fluoroboranes, including perfluorocarboranes, and compared to those of the title compds.

REFERENCE COUNT: 74 THERE ARE 74 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:837099 CAPLUS

DOCUMENT NUMBER: 139:323661

TITLE: Process for the production of (perfluoroalkyl)phosphines by reaction of fluoro(perfluoroalkyl)phosphoranes with hydride donors and their use as perfluoroalkylating reagents

INVENTOR(S): Welz-Biermann, Urs; Ignatyev, Nikolai; Weiden, Michael; Schmidt, Michael; Heider, Udo; Miller, Alexej; Willner, Helge; Sartori, Peter

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003087113	A1	20031023	WO 2003-EP2739		20030317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
DE 10216998	A1	20031113	DE 2002-10216998		20020418
AU 2003218773	A1	20031027	AU 2003-218773		20030317
EP 1495037	A1	20050112	EP 2003-712029		20030317
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
US 2005131256	A1	20050616	US 2003-511554		20030317
JP 2005522512	T2	20050728	JP 2003-584069		20030317
PRIORITY APPLN. INFO.:			DE 2002-10216998	A	20020418
			WO 2003-EP2739	W	20030317

OTHER SOURCE(S): CASREACT 139:323661; MARPAT 139:323661

AB (perfluoroalkyl)phosphines were prepared by solventless reaction at reflux of at least 1 fluoro(perfluoroalkyl)phosphorane (CnF2n+1)mPF5-m

(1≤n≤8, preferably 1≤n≤4; m = 1, 2, 3) with equimolar or excess amts. of at least 1 hydride ion donor (hydride donors = hydrosilanes, alkyl(hydro)silanes, metal hydrides, borohydrides, hydroborates); tris(perfluoroalkyl)phosphines thus prepared are useful for perfluoroalkylation of chemical substrates, preferably tricoordinated organoboron compds. and/or carbonyl group-containing organic compds., in presence of a base. In an example, treating 0.54 mol (C2F5)3PF2 with 1.089 mol NaBH4 at reflux for 3 h with vigorous stirring gave 93% (C2F5)3P, which subsequently was treated with KOBu-t and benzophenone in THF to give 62% CF3CF2C(OH)Ph2.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:837015 CAPLUS

DOCUMENT NUMBER: 139:323332

TITLE: Method for perfluoroalkylation of carbonyl-containing organic compounds and/or tricoordinated organoboron compounds with tris(perfluoroalkyl)phosphine oxides in the presence of a base

INVENTOR(S): Ignatyev, Nikolai; Welz-Biermann, Urs; Schmidt, Michael; Weiden, Michael; Heider, Udo; Willner, Helge; Sartori, Peter; Miller, Alexej

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003087020	A1	20031023	WO 2003-EP2741	20030317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10216996	A1	20031030	DE 2002-10216996	20020416
AU 2003219062	A1	20031027	AU 2003-219062	20030317
EP 1494982	A1	20050112	EP 2003-714833	20030317
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005119513	A1	20050602	US 2003-511156	20030317
JP 2005522496	T2	20050728	JP 2003-583979	20030317

PRIORITY APPLN. INFO.: DE 2002-10216996 A 20020416
WO 2003-EP2741 W 20030317

AB The invention relates to a method for perfluoroalkylation of carbonyl-containing organic compds. and/or tricoordinated organoboron compds. with tris(perfluoroalkyl)phosphine oxides in the presence of a base. Thus, a mixture of KF and (MeO)3B in 1,2-dimethoxyethane was treated with tris(pentafluoroethyl)phosphine oxide (preparation given) at -40° followed by stirring for 1 h at -30° to give 53.6% potassium pentafluoroethyltrisfluoroborate [(C2F5)BF3K].

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:807858 CAPLUS
DOCUMENT NUMBER: 139:395987
TITLE: Perfluoroalkyl borates and boronic esters: new promising partners for Suzuki and Petasis reactions
AUTHOR(S): Kolomeitsev, Alexander A.; Kadyrov, Alexander A.; Szczepkowska-Sztolcman, Joanna; Milewska, Magdalena; Koroniak, Henryk; Bissky, German; Barten, Jan A.; Roeschenthaler, Gerd-Volker
CORPORATE SOURCE: Institute of Organic Chemistry, Ukrainian National Academy of Sciences, Kiev, 02094, Ukraine
SOURCE: Tetrahedron Letters (2003), 44(45), 8273-8277
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:395987
AB Lithium and potassium trifluoromethyl-, pentafluoroethyl- and [(diethylphosphinyl)difluoromethyl]trialkoxyborates were prepared by reaction of either perfluoroalkyllithium or (perfluoroalkyl)trimethylsilane/F- with tri-Me or tri-Et borates. Treatment of perfluoroalkyltrialkoxyborates with methanesulfonyl chloride, Me triflate or Me tosylate furnished the hitherto unknown trifluoromethyl-, pentafluoroethyl- and [(diethylphosphinyl)difluoromethyl]boronic esters.
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:728921 CAPLUS
DOCUMENT NUMBER: 140:199362
TITLE: Novel electrolyte salts based on perfluoroalkyltrifluoroborate anions. 1. Synthesis and characterization
AUTHOR(S): Zhou, Zhi-Bin; Takeda, Masayuki; Ue, Makoto
CORPORATE SOURCE: Electrochemistry Laboratory, Science and Technology Research Center, Mitsubishi Chemical Corporation, Inashiki, Ibaraki, 300-0332, Japan
SOURCE: Journal of Fluorine Chemistry (2003), 123(1), 127-131
CODEN: JFLCAR; ISSN: 0022-1139
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:199362
AB Lithium and tetraethylammonium perfluoroalkyltrifluoroborate salts, Li[RfBF3]·H2O and Et4N[RfBF3] (Rf = C2F5, n-C3F7 and n-C4F9), were prepared from the reactions of perfluoroalkylmagnesium reagents (RfMgBr) and B(OCH3)3, followed by fluorination by aqueous KHF2 and aqueous HF solns. and the cation exchange reaction of the resultant K[RfBF3]. All the salts prepared were characterized by 19F NMR, 1H NMR, 11B NMR, 7Li NMR, IR, MS and elemental anal.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:608824 CAPLUS
DOCUMENT NUMBER: 138:4627
TITLE: (Fluoroorgano)fluoroboranes and -borates. 7. The reaction of RFBF2 and K[RFBF3] (RF = perfluorophenyl-, perfluoroalk-1-enyl- and perfluoroalkyl) with xenon difluoride in anhydrous HF
AUTHOR(S): Frohn, H.-J.; Bardin, V. V.
CORPORATE SOURCE: Fachgebiet Anorganische Chemie, Universitaet Duisburg, Duisburg, D-47048, Germany

SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (2002), 628(8), 1853-1856
CODEN: ZAACAB; ISSN: 0044-2313
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:4627

AB The dissoln. of (perfluoroorgano)difluoroboranes RFBF2 in anhydrous HF (aHF) resulted in equilibrium mixts. of the starting borane and different kinds of acid-base products: [H2F][RFBF2(F·HF)] (RF = C6F5, cis-C2F5CF:CF, trans-C4F9CF:CF) or [H2F][RFBF3] (RF = C6F13). In aHF the aryl compds. C6F5BF2 and K[C6F5BF3] showed two parallel reactivities with XeF2: xenodeborylation (formation of the [C6F5Xe]+ cation) and fluorine addition to the aryl group. In aHF perfluoroalk-1-enyldifluoroboranes RFBF2 as well as potassium perfluoroalk-1-enyltrifluoroborates K[RFBF3] (RF = cis-C2F5CF:CF, trans-C4F9CF:CF) underwent only fluorine addition across the carbon-carbon double bond under the action of XeF2. Potassium perfluorohexyltrifluoroborate K [C6F13BF3] did not react with XeF2 in aHF.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 19:20:21 ON 12 MAR 2006)

FILE 'REGISTRY' ENTERED AT 19:20:45 ON 12 MAR 2006
E 2,2,3,3,3-PENTAFLUORO-1,1-DIPHENYLPROPAN-1-OL/CN
L1 1 S E3
E POTASSIUM PENTAFLUOROETHYLTRIFLUOROBORATE/CN
E POTASSIUM PENTAFLUOROETHYL TRIFLUOROBORATE/CN

FILE 'CAPLUS' ENTERED AT 19:27:57 ON 12 MAR 2006
L2 4 S L1/PREP
L3 1 S POTASSIUM PENTAFLUOROETHYLTRIFLUOROBORATE

FILE 'REGISTRY' ENTERED AT 19:31:25 ON 12 MAR 2006
L4 0 S 805247-52

FILE 'REGISTRY' ENTERED AT 19:32:24 ON 12 MAR 2006
L5 1 S 805247-52-3/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY

FILE 'REGISTRY' ENTERED AT 19:33:52 ON 12 MAR 2006
L6 1 S 482635-70-1

FILE 'MARPAT' ENTERED AT 19:37:46 ON 12 MAR 2006
SET NOTICE DISPLAY 1
SET NOTICE LOGIN DISPLAY

FILE 'REGISTRY' ENTERED AT 19:39:27 ON 12 MAR 2006
L7 1 S 476639-90-4/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY
L8 1 S 476639-90-4

FILE 'CAPLUS' ENTERED AT 19:40:49 ON 12 MAR 2006
L9 10 S L8
L10 7 S L8/PREP

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10 L7
L11 0 L9 NOT L7

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=> s l9 not l0
          2830 L0
L12         10 L9 NOT L0

=> d l12 ibib ab 1-10

L12  ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:        2005:166762  CAPLUS
DOCUMENT NUMBER:         142:414350
TITLE:                   Li[C2F5BF3] as an electrolyte salt for 4 V class
                         lithium-ion cells
AUTHOR(S):               Zhou, Zhi-Bin; Takeda, Masayuki; Fujii, Takashi; Ue,
                         Makoto
CORPORATE SOURCE:        Battery Materials Laboratory, Mitsubishi Chemical
                         Group Science and Technology Research Center,
                         Incorporated, Ibaraki, 300-0332, Japan
SOURCE:                  Journal of the Electrochemical Society (2005), 152(2),
                         A351-A356
                         CODEN: JESOAN; ISSN: 0013-4651
PUBLISHER:               Electrochemical Society
DOCUMENT TYPE:           Journal
LANGUAGE:                English
AB   Lithium pentafluoroethyltrifluoroborate, Li[C2F5BF3] (LiFAB), was prepared
     by a facile metathesis reaction between high-purity K[C2F5BF3] and LiBF4
     in di-Me carbonate with almost quant. yield.  It was characterized by 1H-,
     19F-, 11B-, 7Li-NMR, and elemental anal.  In nonaq. solvents, LiFAB showed
     higher electrolytic conductivities than LiBF4 due to the weaker
     coordinating ability of FAB-.  Compared with LiPF6, it showed a lower
     electrolytic conductivity in room-temperature region, and a higher
conductivity in low-temperature
     region (T < -10 °C).  The performances of LiFAB were evaluated in
     comparison with LiPF6 and LiBF4 by using Li/graphite and Li/nickel-based
     oxide half-cells and Li-ion cells.  LiFAB could afford comparable
     performances to LiPF6 and much better performances than LiBF4.
REFERENCE COUNT:         47    THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12  ANSWER 2 OF 10  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:        2004:1121653  CAPLUS
DOCUMENT NUMBER:         142:176638
TITLE:                   Low-melting, low-viscous, hydrophobic ionic liquids:
                         N-alkyl(alkyl ether)-N-methylpyrrolidinium
                         perfluoroethyltrifluoroborate
AUTHOR(S):               Zhou, Zhi-Bin; Matsumoto, Hajime; Tatsumi, Kuniaki
CORPORATE SOURCE:        Research Institute for Ubiquitous Energy Devices,
                         National Institute of Advanced Industrial Science and
                         Technology, Osaka, 563-8577, Japan
SOURCE:                  Chemistry Letters (2004), 33(12), 1636-1637
                         CODEN: CMLTAG; ISSN: 0366-7022
PUBLISHER:               Chemical Society of Japan
DOCUMENT TYPE:           Journal
LANGUAGE:                English
OTHER SOURCE(S):         CASREACT 142:176638
AB   A series of hydrophobic ionic liqs., e.g., I, comprising
     N-alkyl-N-methylpyrrolidinium and perfluoroethyltrifluoroborate were
     prepared and characterized.  The [C2F5BF3]--based salts showed lower m.ps.
     than the corresponding [BF4]--based ones.  Of these salts, some were liqs.
     at room temperature and show very low viscosities (37-71 cP at 25 °C),
     high ionic conductivities (3.0-6.8 mScm-1) and wide electrochem. windows.
REFERENCE COUNT:         16    THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12  ANSWER 3 OF 10  CAPLUS  COPYRIGHT 2006 ACS on STN
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ACCESSION NUMBER: 2004:1120394 CAPLUS
DOCUMENT NUMBER: 142:198127
TITLE: Low-melting, low-viscous, hydrophobic ionic liquids: 1-alkyl(alkyl ether)-3-methylimidazolium perfluoroalkyltrifluoroborate
AUTHOR(S): Zhou, Zhi-Bin; Matsumoto, Hajime; Tatsumi, Kuniaki
CORPORATE SOURCE: Research Institute for Ubiquitous Energy Devices, National Institute of Advanced Industrial Science and Technology (AIST), Osaka, 563-8577, Japan
SOURCE: Chemistry--A European Journal (2004), 10(24), 6581-6591
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:198127

AB Twenty two hydrophobic ionic liqs., 1-alkyl(alkyl ether)-3-methylimidazolium ([Cmmim]+ or [CmOnmim]+; where Cm is 1-alkyl, Cm = nCmH2m+1, m = 1-4 and 6; CmOn is 1-alkyl ether, C2O1 = CH3OCH2, C3O1 = CH3OCH2CH2, and C5O2 = CH3(OCH2CH2)2) perfluoroalkyltrifluoroborate ([RFBF3]-, RF = CF3, C2F5, nC3F7, nC4F9), were prepared and characterized. Some of the important physicochem. properties of these salts including m.p., glass transition, viscosity, d., ionic conductivity, thermal and electrochem. stability, were determined and were compared with those of the reported [BF4]--based ones. The influence of the structure variation in the imidazolium cation and the perfluoroalkyltrifluoroborate ([RFBF3]-) anion on the above physicochem. properties is discussed. The key features of these new salts are their low m.ps. (-42 to 35°) or extremely low glass transition (between -87 and -117°) without melting, and considerably low viscosities (26-77 cP at 25°).

REFERENCE COUNT: 74 THERE ARE 74 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1059309 CAPLUS
DOCUMENT NUMBER: 142:37908
TITLE: Synthesis of guanidinium-cation containing salts for use as ionic liquid reaction media
INVENTOR(S): Welz-Biermann, Urs; Ignatyev, Nikolai; Willner, Helge; Bissky, German
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004106288	A2	20041209	WO 2004-EP3459	20040401
WO 2004106288	A3	20050317		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10325051	A1	20041223	DE 2003-10325051	20030602

PRIORITY APPLN. INFO.: DE 2003-10325051 A 20030602
OTHER SOURCE(S): MARPAT 142:37908
AB The invention relates to salts containing guanidinium cations, to a method for their production and to their use as ionic liqs. Thus, 1,3-dimethyl-2-chloroimidazolidinium chloride was reacted with trimethylsilyldiethylamine to give 1,3-dimethyl-2-diethylaminioimidazolidinium chloride, which was then reacted with trifluorotris(pentafluoroethyl)phosphate to give the desired compound (I), m.p. 36-37° C. I had viscosities of 78, 34, and 18 cP at 40, 60, and 80 °C, resp., compared to 346, 269, and 124 cP for reference compound N,N-dimethyl-N',N',N",N"-tetrahexylguanidinium bis(trifluoromethanesulfonyl)imide at 25, 40, or 60 °C, resp.

L12 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:990110 CAPLUS
DOCUMENT NUMBER: 140:181496
TITLE: Rearrangement reactions of the transient Lewis acids (CF3)3B and (CF3)3BCF2: an experimental and theoretical study
AUTHOR(S): Finze, Maik; Bernhardt, Eduard; Zaehres, Manfred; Willner, Helge
CORPORATE SOURCE: Fakultaet 4, Anorganische Chemie, Universitaet Duisburg-Essen, Duisburg, D-47048, Germany
SOURCE: Inorganic Chemistry (2004), 43(2), 490-505
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:181496
AB Short-lived (CF3)3B and (CF3)3BCF2 are generated as intermediates by thermal dissociation of (CF3)3BCO and F- abstraction from the weak coordinating anion [B(CF3)4]-, resp. Both Lewis acids cannot be detected because of their instability with respect to rearrangement reactions at the B-C-F moiety. A cascade of 1,2-F shifts to B followed by perfluoroalkyl group migrations and also difluorocarbene transfer reactions occur. In the gas phase, (CF3)3B rearranges to a mixture of linear perfluoroalkyldifluoroboranes CnF2n+1BF2 (n = 2-7), while the resp. reactions of (CF3)3BCF2 result in a mixture of linear (n = 2-4) and branched monoperfluoroalkyldifluoroboranes, e.g., (C2F5)(CF3)FCBF2. For comparison, the reactions of [CF3BF3]- and [C2F5BF3]- with AsF5 were studied, and the products in the case of [CF3BF3]- are BF3 and C2F5BF2 whereas in the case of [C2F5BF3]-, C2F5BF2 is the sole product. In contrast to reports in the literature, CF3BF2 is too unstable at room temperature to be detected. The decomposition of (CF3)3BCO in anhydrous HF leads to a mixture of the new conjugate Bronsted-Lewis acids [H2F][(CF3)3BF] and [H2F][C2F5BF3]. All reactions are modeled by d. functional calcns. The energy barriers of the transition states are low in agreement with the exptl. results that (CF3)3B and (CF3)3BCF2 are short-lived intermediates. Since CF2 complexes are key intermediates in the rearrangement reactions of (CF3)3B and (CF3)3BCF2, CF2 affinities of some perfluoroalkylfluoroboranes are presented. CF2 affinities are compared to CO and F- affinities of selected boranes showing a trend in Lewis acidity, and its influence on the stability of the complexes is discussed. F- ion affinities are calculated for a variety of different fluoroboranes, including perfluorocarboranes, and compared to those of the title compds.
REFERENCE COUNT: 74 THERE ARE 74 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:837099 CAPLUS
DOCUMENT NUMBER: 139:323661
TITLE: Process for the production of (perfluoroalkyl)phosphines by reaction of fluoro(perfluoroalkyl)phosphoranes with hydride donors

and their use as perfluoroalkylating reagents
INVENTOR(S): Welz-Biermann, Urs; Ignatyev, Nikolai; Weiden, Michael; Schmidt, Michael; Heider, Udo; Miller, Alexej; Willner, Helge; Sartori, Peter
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003087113	A1	20031023	WO 2003-EP2739	20030317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10216998	A1	20031113	DE 2002-10216998	20020418
AU 2003218773	A1	20031027	AU 2003-218773	20030317
EP 1495037	A1	20050112	EP 2003-712029	20030317
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005131256	A1	20050616	US 2003-511554	20030317
JP 2005522512	T2	20050728	JP 2003-584069	20030317

PRIORITY APPLN. INFO.: DE 2002-10216998 A 20020418
WO 2003-EP2739 W 20030317
OTHER SOURCE(S): CASREACT 139:323661; MARPAT 139:323661
AB (perfluoroalkyl)phosphines were prepared by solventless reaction at reflux of at least 1 fluoro(perfluoroalkyl)phosphorane (CnF2n+1)mPF5-m (1≤n≤8, preferably 1≤n≤4; m = 1, 2, 3) with equimolar or excess amts. of at least 1 hydride ion donor (hydride donors = hydrosilanes, alkyl(hydro)silanes, metal hydrides, borohydrides, hydroborates); tris(perfluoroalkyl)phosphines thus prepared are useful for perfluoroalkylation of chemical substrates, preferably tricoordinated organoboron compds. and/or carbonyl group-containing organic compds., in presence of a base. In an example, treating 0.54 mol (C2F5)3PF2 with 1.089 mol NaBH4 at reflux for 3 h with vigorous stirring gave 93% (C2F5)3P, which subsequently was treated with KOBu-t and benzophenone in THF to give 62% CF3CF2C(OH)Ph2.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:837015 CAPLUS
DOCUMENT NUMBER: 139:323332
TITLE: Method for perfluoroalkylation of carbonyl-containing organic compounds and/or tricoordinated organoboron compounds with tris(perfluoroalkyl)phosphine oxides in the presence of a base
INVENTOR(S): Ignatyev, Nikolai; Welz-Biermann, Urs; Schmidt, Michael; Weiden, Michael; Heider, Udo; Willner, Helge; Sartori, Peter; Miller, Alexej
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003087020	A1	20031023	WO 2003-EP2741	20030317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10216996	A1	20031030	DE 2002-10216996	20020416
AU 2003219062	A1	20031027	AU 2003-219062	20030317
EP 1494982	A1	20050112	EP 2003-714833	20030317
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005119513	A1	20050602	US 2003-511156	20030317
JP 2005522496	T2	20050728	JP 2003-583979	20030317
PRIORITY APPLN. INFO.:			DE 2002-10216996 A	20020416
			WO 2003-EP2741 W	20030317

AB The invention relates to a method for perfluoroalkylation of carbonyl-containing organic compds. and/or tricoordinated organoboron compds. with tris(perfluoroalkyl)phosphine oxides in the presence of a base. Thus, a mixture of KF and (MeO)3B in 1,2-dimethoxyethane was treated with tris(pentafluoroethyl)phosphine oxide (preparation given) at -40° followed by stirring for 1 h at -30° to give 53.6% potassium pentafluoroethyltrisfluoroborate [(C2F5)BF3K].

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:807858 CAPLUS
DOCUMENT NUMBER: 139:395987
TITLE: Perfluoroalkyl borates and boronic esters: new promising partners for Suzuki and Petasis reactions
AUTHOR(S): Kolomeitsev, Alexander A.; Kadyrov, Alexander A.; Szczepkowska-Sztolcman, Joanna; Milewska, Magdalena; Koroniak, Henryk; Bissky, German; Barten, Jan A.; Roeschenthaler, Gerd-Volker
CORPORATE SOURCE: Institute of Organic Chemistry, Ukrainian National Academy of Sciences, Kiev, 02094, Ukraine
SOURCE: Tetrahedron Letters (2003), 44(45), 8273-8277
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:395987

AB Lithium and potassium trifluoromethyl-, pentafluoroethyl- and [(diethylphosphinyl)difluoromethyl]trialkoxyborates were prepared by reaction of either perfluoroalkyllithium or (perfluoroalkyl)trimethylsilane/F- with tri-Me or tri-Et borates. Treatment of perfluoroalkyltrialkoxyborates with methanesulfonyl chloride, Me triflate or Me tosylate furnished the hitherto unknown trifluoromethyl-, pentafluoroethyl- and [(diethylphosphinyl)difluoromethyl]boronic esters.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:728921 CAPLUS
DOCUMENT NUMBER: 140:199362
TITLE: Novel electrolyte salts based on perfluoroalkyltrifluoroborate anions. 1. Synthesis and characterization
AUTHOR(S): Zhou, Zhi-Bin; Takeda, Masayuki; Ue, Makoto
CORPORATE SOURCE: Electrochemistry Laboratory, Science and Technology Research Center, Mitsubishi Chemical Corporation, Inashiki, Ibaraki, 300-0332, Japan
SOURCE: Journal of Fluorine Chemistry (2003), 123(1), 127-131
CODEN: JFLCAR; ISSN: 0022-1139
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:199362
AB Lithium and tetraethylammonium perfluoroalkyltrifluoroborate salts, Li[RfBF3]·H2O and Et4N[RfBF3] (Rf = C2F5, n-C3F7 and n-C4F9), were prepared from the reactions of perfluoroalkylmagnesium reagents (RfMgBr) and B(OCH3)3, followed by fluorination by aqueous KHF2 and aqueous HF solns. and the cation exchange reaction of the resultant K[RfBF3]. All the salts prepared were characterized by 19F NMR, 1H NMR, 11B NMR, 7Li NMR, IR, MS and elemental anal.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:608824 CAPLUS
DOCUMENT NUMBER: 138:4627
TITLE: (Fluoroorgano)fluoroboranes and -borates. 7. The reaction of RFBF2 and K[RFBF3] (RF = perfluorophenyl-, perfluoroalk-1-enyl- and perfluoroalkyl) with xenon difluoride in anhydrous HF
AUTHOR(S): Frohn, H.-J.; Bardin, V. V.
CORPORATE SOURCE: Fachgebiet Anorganische Chemie, Universitaet Duisburg, Duisburg, D-47048, Germany
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (2002), 628(8), 1853-1856
CODEN: ZAACAB; ISSN: 0044-2313
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:4627
AB The dissoln. of (perfluoroorgano)difluoroboranes RFBF2 in anhydrous HF (aHF) resulted in equilibrium mixts. of the starting borane and different kinds of acid-base products: [H2F][RFBF2(F·HF)] (RF = C6F5, cis-C2F5CF:CF, trans-C4F9CF:CF) or [H2F][RFBF3] (RF = C6F13). In aHF the aryl compds. C6F5BF2 and K[C6F5BF3] showed two parallel reactivities with XeF2: xenodeborylation (formation of the [C6F5Xe]+ cation) and fluorine addition to the aryl group. In aHF perfluoroalk-1-enyldifluoroboranes RFBF2 as well as potassium perfluoroalk-1-enyltrifluoroborates K[RFBF3] (RF = cis-C2F5CF:CF, trans-C4F9CF:CF) underwent only fluorine addition across the carbon-carbon double bond under the action of XeF2. Potassium perfluorohexyltrifluoroborate K [C6F13BF3] did not react with XeF2 in aHF.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT